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Report to Congressional Requesters

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NAVY MAINTENANCE

Overseas Ship Repairs and Associated Costs

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GAO

United States
General Accounting Office
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National Security and
International Affairs Division

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November 13, 1992

The Honorable Robert E. Andrews
The Honorable Robert A. Borski
The Honorable Lawrence Coughlin
The Honorable Thomas M. Foglietta
The Honorable Peter H. Kostmayer
The Honorable Curt Weldon
House of Representatives

This report responds to your request for information on the maintenance of Navy ships at overseas locations. We found that the Navy needs to improve internal controls over overseas ship maintenance activities.

We are sending copies of this report to the Chairmen and Ranking Minority Members, Senate and House Committees on Armed Services and on Appropriations; the Chairmen, Senate Committee on Governmental Affairs and House Committee on Government Operations; the Director, Office of Management and Budget; and the Secretaries of Defense and the Navy.

Please contact me on (202) 275-6504 if you or your staff have any questions concerning this report. Major contributors are listed in appendix II.

Richard Davis
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Executive Summary

Purpose

Because of their concerns about the decision to close the Navy's shipyard in Philadelphia, Pennsylvania, and the impending reductions in other Navy and private shipyards, several congressmen asked GAO to review the Navy's use of overseas ship repair facilities. Specifically, GAO was asked to provide data on (1) the amount of maintenance performed on Navy ships at overseas Navy ship repair facilities and foreign commercial shipyards in fiscal years 1987 to 1991 and projected for fiscal years 1992 to 1998, (2) the operational impact of returning Japan-based ships to the United States for maintenance, (3) the costs associated with returning ships to the United States for maintenance, and (4) the labor cost-sharing agreement between the United States and Japan for ship maintenance. GAO also reviewed the internal controls for ensuring compliance with legislative restrictions on overseas ship repairs.

Background

The Navy categorizes major repairs performed on Navy ships overseas into two groups (1) long-term planned maintenance and (2) corrective maintenance. Long-term planned maintenance is regularly scheduled, is approved by the Chief of Naval Operations, and takes 2 to 3 months to complete. This type of maintenance is performed on 22 Navy ships based in the Pacific—17 in Japan and 5 in Guam—and 11 Military Sealift Command ships homeported overseas. Since fiscal year 1987, the Congress has restricted the type of maintenance performed overseas on U.S. homeported ships. Public Law 100-456, dated September 29, 1988, amended section 7309 of title 10, U.S. Code, to prohibit overhauls, repairs, or maintenance on ships not homeported overseas, except for voyage repairs.

According to the Navy, corrective maintenance includes emergent repairs and voyage repairs that are performed on any Navy ship deployed overseas. As part of a ship's deployment, the Pacific Fleet regularly schedules periods of maintenance to repair any problems that may have emerged during deployment. Repairs during these periods are called emergent repairs. Voyage repairs consist of emergency work that is necessary to enable a ship to continue its mission and that can be accomplished without a change to the ship's deployment schedule. By their nature, voyage repairs cannot be scheduled.

Overseas maintenance is performed either at Navy-operated ship repair facilities or at foreign commercial shipyards. Navy-operated ship repair facilities are located at Yokosuka, Japan; Subic Bay, Philippines; and

Guam. However, the Subic Bay facility is scheduled to close by December 31, 1992.

Results in Brief

The Navy spent $1.3 billion dollars on overseas ship maintenance from fiscal years 1987 through 1991. Almost 85 percent of all repairs were accomplished at the three Navy-operated facilities. Overseas ship maintenance costs are declining and the Navy projects that overseas costs will total $1.1 billion in fiscal years 1992 through 1998.

If the Japan-based ships were returned to the U.S. shipyards for long-term planned maintenance, the ships would not be able to meet existing operational commitments because Navy policies require ships to remain in their homeport twice as long as they have been deployed. In addition, the cost to perform long-term planned maintenance for the Yokosuka-based ships at U.S. shipyards would range from $211.7 million to $741.6 million more for fiscal years 1992 through 1998. Japan's labor cost-sharing agreement with the United States is a major factor contributing to the lower costs in Japan. Japan will fund 100 percent of the labor costs for U.S. ship repairs by 1996.

The Navy lacks sufficient internal controls to ensure that its overseas maintenance process complies with statutory limitations on overseas maintenance of U.S. homeported ships. Further, the Navy has not incorporated the legislative limitations on overseas ship repairs into Navy policy and procedures.

Principal Findings

Overseas Ship Repair Costs

Between fiscal years 1987 and 1991, the Navy spent $1.3 billion dollars on overseas ship repairs, of which $762 million was for long-term planned maintenance and $544 million was for corrective maintenance. Overseas ship maintenance costs declined 28 percent from 1987 to 1991, including a $122-million reduction in long-term planned maintenance.

Ship repairs at foreign commercial shipyards are primarily for corrective maintenance, although the Navy-operated facility in Japan also contracts with private contractors for long-term planned maintenance. From fiscal years 1987 to 1991, over $200 million was awarded for ship repairs to foreign contractors.

The Navy expects overseas ship maintenance costs to continue to decline because of the decreasing size of the fleet, reductions in defense spending, and the Japanese government's payment of labor costs at the Yokosuka facility. For fiscal years 1992 through 1998, Navy budget documents project that $1.1 billion will be spent on all overseas ship repairs.

Overseas Maintenance and Navy Policies

According to the Department of Defense's (DOD) National Military Strategy, geography, U.S. interests, and the nature of potential threats dictate the continuing need for a forward presence in the Pacific Ocean region. Therefore, DOD plans to base one aircraft carrier battle group and an amphibious-ready group in Japan.

Long-term planned maintenance for these ships is performed in Japan because accomplishing this maintenance in the United States would conflict with Navy deployment and family separation policies. In 1985, the Navy established the Personnel Tempo of Operations Program to ensure that the Navy's mission is met while maintaining a reasonable quality of life for Navy personnel. This program limits the amount of time a ship can be away from its homeport.

Costs Much Higher at U.S. Shipyards

Depending upon the U.S. shipyard accomplishing the work, the comparable costs of repairing the Japan-based ships at U.S. shipyards could be as much as 460 percent higher than the repair costs at the Yokosuka facility. For fiscal years 1992 through 1998, the labor costs could range from $211.7 million to $741.6 million more at public or private U.S. shipyards compared to the Yokosuka facility. In addition, nonmaintenance costs, such as fuel and family separation allowances, would account for at least another $51.2 million.

Yokosuka Labor Costs Funded by Government of Japan

A major factor contributing to the lower ship repair costs at the Yokosuka ship repair facility is Japan's labor cost-sharing agreement with the United States. This agreement resulted from U.S. initiatives that Japan assume more financial responsibility for stationing U.S. forces in Japan in return for a U.S. commitment to defend Japan. Beginning in fiscal year 1992, the government of Japan began to fund part of the direct costs of labor at the Navy-operated Yokosuka facility. By 1996, all Japanese labor costs at the ship repair facility will be funded by the government of Japan.

Data Limitations Precluded Determining the Navy's Compliance With the Law

Incomplete data precluded GAO from determining if the Navy is in compliance with legislative limitations that prohibit the overseas repair or maintenance of U.S. homeported ships. For example, the Navy could not provide data on the nature of the ship repair work performed at foreign commercial shipyards. Also, the Navy has not incorporated legislative limitations into its policies, regulations, and procedures, nor has it adopted other internal controls techniques, such as routine reporting requirements, to ensure that the Navy is in compliance with statutory limitations. Further, the Navy has not conducted the evaluation required by the Federal Managers' Financial Integrity Act of 1982 to determine if there are weaknesses in internal controls over the overseas ship maintenance process.

Recommendations

GAO recommends that the Secretary of the Navy (1) incorporate section 7309(c) of title 10, U.S. Code, into the Department's policy and guidance; (2) conduct the evaluation necessary to determine if compliance with statutory limitations on overseas ship maintenance activities is an issue needing corrective action in the Federal Managers' Financial Integrity Act assessment process; and (3) if so, develop and implement a corrective action plan.

Agency Comments

DOD agreed with GAO's findings and recommendations (see app. I) and stated that by December 31, 1992, the Navy will issue policy guidance incorporating the legislative limitations on overseas ship maintenance. Further, the Navy will include overseas ship maintenance activities as a material weakness needing corrective action in the current Federal Managers' Financial Integrity Act assessment process, and will submit a corrective action plan for approval.

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DOD Department of Defense

Introduction

The Navy spent $21.8 billion on ship maintenance between fiscal years 1987 and 1991. Of this amount, $1.3 billion was spent overseas. Regularly scheduled repairs were made to ships permanently based overseas as well as emergency repairs to these ships and to ships deployed from the continental United States and Hawaii. Navy officials stated that maintenance on overseas-based ships must be accomplished in foreign ports to minimize family separations and to maintain the ships' condition while they are homeported outside the United States.

Maintenance was accomplished at three Navy-owned and -operated facilities located at Yokosuka, Japan; Subic Bay, Philippines; and Guam. These locations were also homeports for Navy and Military Sealift Command ships. However, the Subic Bay facility is scheduled to close by December 31, 1992.

Work on Navy ships is also contracted to numerous foreign commercial shipyards, worldwide. Navy officials stated that these shipyards are used when (1) the Navy-operated ship repair facilities are overloaded with work or when jobs require unique skills available only from the private sector or (2) a deployed ship needs corrective repairs to continue its mission and the repairs cannot be performed in a Navy-operated facility. Foreign commercial shipyards in 15 countries performed ship repairs on U.S. ships between fiscal years 1987 and 1991.

Navy-Operated Facilities Overseas

The three overseas ship repair facilities report to the Commander in Chief, U.S. Pacific Fleet, who in turn reports to the Chief of Naval Operations. The facilities also perform work on other U.S. government ships, such as Army and Coast Guard ships, and foreign government ships. Table 1.1 shows the staffing for the three ship repair facilities at the end of fiscal year 1991.

Table 1.1: Staffing at Navy-Operated Facilities

Facility	U.S. officers	U.S. enlisted	U.S. civilians	Foreign nationals	Total
Yokosuka[a]	19	55	83	1,851	**2,008**
Subic Bay	23	84	90	3,100	**3,297**
Guam	11	125	1,000	0	**1,136**
Total	**53**	**264**	**1,173**	**4,951**	**6,441**

[a]Includes staffing for Yokosuka's detachment at Sasebo.

Navy officials manage the Yokosuka ship repair facility. However, the repair work is performed by Japanese employees who work for the

Japanese government under a master labor contract. The Navy also maintains a detachment at Sasebo, Japan. Both facilities contract some work to foreign commercial shipyards or private contractors. The facilities have no nuclear repair capability. Yokosuka is the homeport for 11 Navy ships and Sasebo is the homeport for 6 Navy ships.[1]

The Navy ship repair facility at Subic Bay was the largest of the Navy-operated facilities. The facility has not been a homeport for a Navy ship since the cruiser U.S.S. Sterett left in 1990. As of February 14, 1992, the facility ceased ship repair operations and is scheduled to close by December 31, 1992. The Navy is studying the impact of the Subic Bay closure on other ship repair facilities.

The ship repair facility at Guam is located on the western most point on U.S. land, and is the smallest of the ship repair facilities. Residents of Guam are U.S. citizens. Navy officials manage the Guam ship repair facility, while the repair work is performed by the U.S. citizens from Guam.

The Navy considers Guam to be a primary location for dry docking submarines in the Pacific. Nuclear repairs are performed by the submarine tender U.S.S. Proteus that is homeported in Guam. Guam also serves as homeport for four other Navy ships.

Types of Repair

The Navy categorizes major ship repairs on Navy ships overseas into two groups—long-term planned maintenance and corrective maintenance. Long-term planned maintenance is regularly scheduled, is approved by the Chief of Naval Operations, and takes 2 to 3 months to complete. Although there are 465 ships in the Navy's fleet, this type of maintenance, when conducted overseas, should by law only be performed on the 22 Navy ships homeported in the Pacific—17 in Japan and 5 in Guam. Eleven Military Sealift Command ships homeported overseas receive a similar type of maintenance. Section 7309(c), title 10, U.S. Code, prohibits ships homeported in the United States from being "overhauled, repaired, or maintained in a shipyard outside the United States" except "in the case of voyage repairs."

[1]Prior to September 1992, Yokosuka was the homeport for 10 Navy ships and Sasebo was the homeport for 5 Navy ships. Navy officials told us that each homeport subsequently received another ship, bringing the number of Japan-based ships to 17.

According to the Navy, corrective maintenance includes emergent repairs and voyage repairs. As part of a ship's deployment, it has time set aside for short-term periods of maintenance to repair any problems that have emerged during deployment. These are emergent repairs. Pacific Fleet officials also refer to these repairs as preventive maintenance. Voyage repairs consist of emergency work that is necessary to enable a ship to continue its mission and that can be accomplished without a change to a ship's operating schedule. By their nature, voyage repairs cannot be scheduled and may be performed on any Navy ship deployed overseas.

Objectives, Scope, and Methodology

Concerned about the volume of ship repair work being performed overseas at a time when U.S. shipyards are closing due to declining work, several congressmen requested that we review the Navy's use of overseas facilities. Specifically, we determined (1) the amount of maintenance performed on Navy ships at overseas ship repair facilities and foreign commercial shipyards in fiscal years 1987 through 1991 and planned for fiscal years 1992 through 1998, (2) the operational impact of returning forward deployed ships to the United States for maintenance, (3) the costs associated with returning ships to the United States for maintenance, and (4) the labor cost-sharing agreement between the U.S. and Japan for ship maintenance. We also reviewed the internal controls for ensuring accurate data regarding the cost and classification of ship repairs to determine if the Navy complied with section 7309(c) of title 10 U.S. Code.

In determining past and projected costs, we analyzed documents and held discussions with officials from the Chief of Naval Operations, Naval Sea Systems Command, Military Sealift Command, Atlantic and Pacific Fleets, Naval Regional Contracting Centers in Italy and Singapore, and overseas ship repair facilities. We did not independently determine the data's reliability. However, we worked with the Navy over a 6-month period to satisfy ourselves that the data was reliable to report overseas maintenance costs.

We interviewed Navy officials at Navy headquarters and fleet commands to determine the operational impact of returning Japan-based ships to the United States for maintenance. We reviewed data on deployment cycles, scheduled maintenance, and operational factors.

As agreed with the requesters, to determine the costs associated with returning ships to the United States for maintenance, we focused on labor costs at Yokosuka and U.S. repair facilities. Using the Navy's planned ship

maintenance schedule for fiscal years 1992 through 1998, we obtained the projected staff days for each ship's long-term planned maintenance at the Yokosuka facility. We applied the labor compensation rates against the staff days to determine the projected costs of this maintenance at Yokosuka. Because some ship repair work at Yokosuka has been contracted to over 20 private contractors, we used a weighted average. We factored in the Japanese government's subsidized labor rate used at the Yokosuka facility.

We compared these projected costs with those of five public shipyards (Pearl Harbor, Puget Sound, Long Beach, Norfolk, and Charleston). The Philadelphia shipyard was not selected because it is scheduled for closure, and Portsmouth and Mare Island were not selected because they primarily do repairs on nuclear ships. The Yokosuka facility works only on conventional, surface ships. We applied the staff days planned for Yokosuka to the Navy Industrial Fund rates for each public shipyard to determine the public shipyards' projected costs.

We also compared Yokosuka's ship repair costs with those of U.S. private contractors, since it is the Navy's policy to have a portion of its ship repairs conducted at private shipyards. We used composite rates for the Norfolk and San Diego areas. These composite rates are approved by the Navy and used for Navy budget estimates.

We obtained data from the Navy to develop the additional costs incurred if ships based in Japan were returned to U.S. shipyards. This data related to (1) fuel costs to transit from Japan to West Coast shipyards, (2) family separation allowances, and (3) off ship berthing allowances.

We discussed the Japanese government's labor cost-sharing of ship maintenance with Pacific Fleet officials and obtained relevant data. We also determined the effect of the agreement on the Navy's repair costs.

Our review was made in accordance with generally accepted government auditing standards and was performed between December 1991 and August 1992.

Overseas Maintenance Needed to Meet Operational Commitments

The Department of Defense (DOD) has identified the need for a continued U.S. military presence overseas because of U.S. interests, geography, and the nature of potential threats. Although the global threat has dissipated and the size of the Navy's fleet is declining, DOD believes that a high-level presence should be maintained in the Pacific by keeping ships based in Japan and Guam. Also, compliance with the Navy's Personnel Tempo of Operation Program policies precludes returning ships based overseas to domestic repair facilities without impacting operational commitments. We accepted DOD's premise and the Navy's policy for the purpose of this review.

National Military Strategy

In January 1992, DOD issued a new National Military Strategy that shifts military planning away from the threat of a global war toward a variety of threats in regions vital to U.S. interests. Although DOD recognizes that the end of the Cold War has significantly reduced the requirement to station U.S. forces in Europe, downsizing Navy forces in the Pacific was not suggested. According to this strategy, U.S. interests in the Pacific, including Southeast Asia and the Indian Ocean, require a continuing commitment. DOD believes that the presence of U.S. forces in the Pacific region serves as a stabilizing influence in this economically important region.

The U.S. military forces in the Pacific are principally maritime, with half of the Navy's total projected carrier and amphibious force oriented toward this area. Japan is the only location where a carrier is permanently based outside the continental United States.

Although the size of the Navy's fleet is declining, DOD plans to keep one aircraft carrier battle group and an amphibious-ready group in Japan. Ships homeported in Japan are referred to as part of the Overseas Family Residence Program. DOD and Navy officials have stated that these ships provide most of the presence in the western Pacific Ocean and some presence in the Indian Ocean and Arabian Sea region.

Operational Commitment Policy

Returning Japan-based ships to West Coast shipyards for repairs would lessen the amount of time these ships would be available in the Pacific region to meet regional commitments. The transit time between Japan and the West Coast shipyards is about 18 days, including a 1-day stop at Pearl Harbor. The duration of the planned maintenance period is about 90 days. If the maintenance was accomplished in the United States, the transit time

plus the maintenance period (a total of 126 days) would constitute another deployment for each ship. A ship is considered deployed when it operates away from its homeport continuously for at least 56 days, beginning with departure from the homeport and ending when it returns.

In 1985, the Navy established the Personnel Tempo of Operations Program to ensure that the Navy's missions are met, while maintaining a reasonable quality of life for Navy personnel. Under this program (1) ships will not be deployed, including transit time, in excess of 6 months; (2) over a 5-year period, a ship will not be away from its homeport in excess of 50 percent of the time; and (3) for every deployment of 56 days or more, a ship will be compensated twice that time in homeport before deploying again. These goals apply to all Navy ships, whether they are based in the continental United States or Japan.

According to Navy officials, none of the 17 ships based in Japan would be able to meet their operational commitments if they were returned to the West Coast for long-term planned maintenance. Long-term maintenance is regularly scheduled and takes about 3 months to complete. Our analysis of the operational requirements for two ships supported the Navy's position.

For example, the operational requirement for one ship based in Japan consisted of a deployment of 181 days, beginning on April 15, 1991, and ending on October 12, 1991. Since for every deployment of 56 days or more a ship will be compensated twice that time before deploying again, this ship is not available for another nondeployment for 362 days, or until October 8, 1992. During the nondeployable period, the ship conducts local operations and training exercises close to its homeport, such as in the Sea of Japan, South China Sea, or Philippine Sea. These periods at sea are less than 56 days and therefore are not counted as a deployment.

This ship was scheduled to have its long-term planned maintenance from May 10, 1992, through August 9, 1992, a duration of 92 days. This maintenance was accomplished at the ship's homeport in Japan during the nondeployable period, without affecting any operational requirements—deployments, local exercises, training—and complied with deployment and family separation policies.

If the ship was returned to the West Coast for long-term planned maintenance, it could not depart from Japan until October 8, 1992, the first available date following completion of its last deployment. The transit to and from the West Coast for maintenance would constitute a

deployment of 128 days (92 days for the maintenance period and 36 days in transit). Thus, this ship would not be available to again deploy for 256 days, or until October 1993. The ship would not be available to meet any part of the operational requirement for its second deployment scheduled on October 15, 1992. No other ship based in Japan would be available to complete the second deployment because each ship has its own operational requirement. Having the Japan-based ship return to the United States for maintenance would result in the ship deploying solely for maintenance activities and not being available to meet operational commitments.

Overseas Ship Repair Costs

During fiscal years 1987 through 1991, the Navy spent $1.3 billion on overseas ship repairs, of which $762 million was for long-term planned maintenance and $544 million was for corrective maintenance. Almost 85 percent of the repair work was accomplished at the three Navy-operated ship repair facilities located at Yokosuka, Japan; Subic Bay, Philippines; and Guam; and the remaining work was accomplished at foreign commercial shipyards.

Total expenditures on overseas ship maintenance declined 28 percent from fiscal years 1987 to 1991, including a $122-million reduction in spending on long-term planned maintenance at the Navy-operated ship repair facilities. Navy data shows the decline will continue and that overseas ship maintenance will total $1.1 billion from fiscal years 1992 through 1998.

The work done on U.S. naval ships at foreign commercial shipyards is primarily corrective maintenance. From fiscal year 1987 through fiscal year 1991, over $200 million in maintenance work was awarded to foreign contractors, of which $97 million was contracted from the Yokosuka ship repair facility to private contractors in Japan.

Ship Maintenance Is Declining

Table 3.1 shows that expenditures for overseas ship maintenance declined from a high of $312 million in fiscal year 1987 to $225 million in 1991. Funds spent on long-term planned maintenance decreased, while expenditures for corrective maintenance increased.

Table 3.1: Expenditures for Overseas Ship Maintenance 1987-1991

Dollars in millions

Fiscal year	Planned maintenance	Corrective maintenance	Total
1987	$229.6	$82.7	**$312.3**
1988	189.0	94.4	**283.4**
1989	128.3	135.6	**263.9**
1990	107.7	114.5	**222.2**
1991	107.8	117.2	**225.0**
Total	**$762.4**	**$544.4**	**$1,306.8**

Labor costs at the Navy-operated ship repair facilities accounted for $615 million, or 47 percent, of the $1.3 billion spent on overseas maintenance. Material costs and foreign commercial shipyard costs accounted for the remaining $692 million. Figures 3.1 and 3.2 show the

percentage of long-term and corrective maintenance performed at each of the overseas maintenance facilities and the foreign commercial shipyards.

Figure 3.1: Activities Performing Long-Term Planned Maintenance, FYs 1987-1991

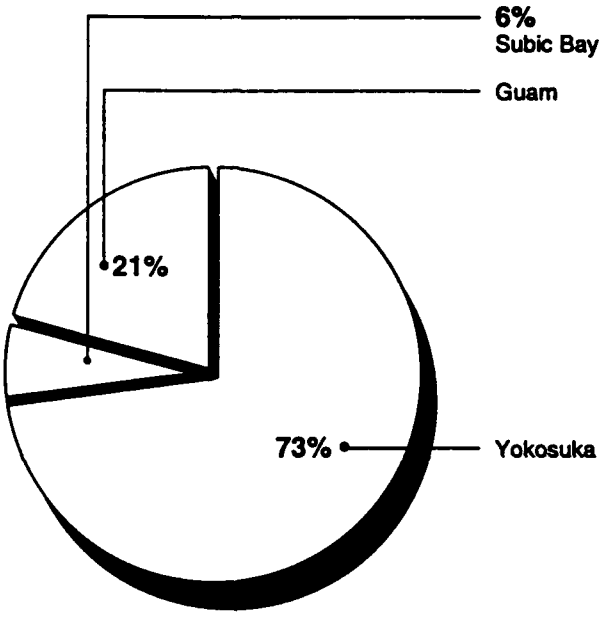
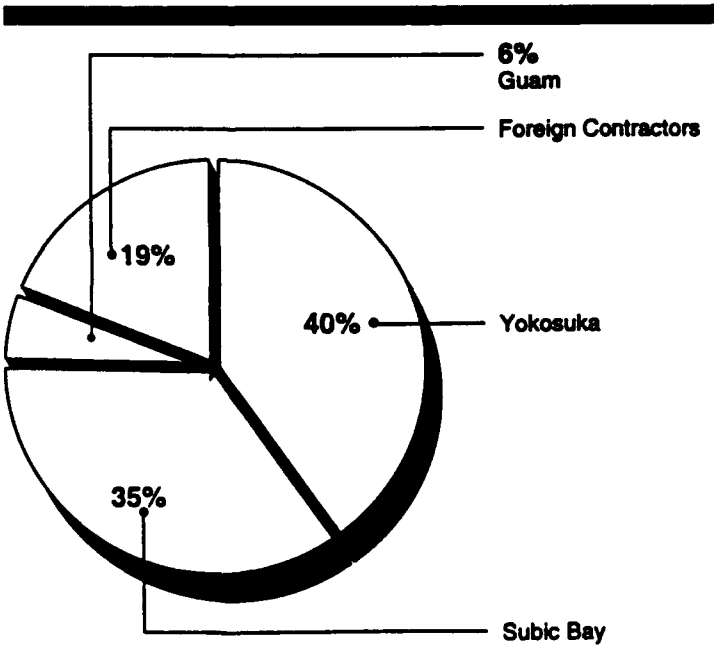


Figure 3.2: Activities Performing Corrective Maintenance, FYs 1987-1991



According to Navy officials, material costs would not vary among the U.S. shipyards or overseas ship repair facilities. In either case, the materials used are of U.S. origin and are obtained through the DOD supply system.

Most Repair Work Performed at Ship Repair Facilities

Of the $1.3 billion spent during fiscal years 1987 to 1991, $1.2 billion was expended at the Navy-operated ship repair facilities or their contractors. In terms of the work performed at the ship repair facilities, 63 percent was for long-term planned maintenance and 37 percent was for corrective maintenance.

Yokosuka Ship Repair Facility

The total cost of repairs to Navy and Military Sealift Command ships at Yokosuka and its Sasebo detachment was $775 million over the 5-year period. Labor costs were $302 million and material costs and contract costs were $473 million. Yokosuka and its Sasebo detachment contract a portion of their repair work to commercial shipyards when there is a work overload or a need for specialized capabilities. During fiscal years 1989 to 1991, Yokosuka contracted $97 million in repair work to private contractors. The Navy did not provide similar statistics for fiscal years 1987 and 1988. Yokosuka and Sasebo, homeports for 17 ships, conducted 73 percent ($557 million) of all overseas planned maintenance.

Subic Bay Ship Repair Facility

The total cost of repairs at Subic Bay was $239 million over the 5-year period. Labor costs were $177 million and material costs were $62 million. Of the total costs, $48 million was spent on long-term planned maintenance and $191 million was spent on corrective maintenance. Planned maintenance declined from $12 million in fiscal year 1987 to $6 million in fiscal year 1991. The 1991 funds for planned maintenance were spent exclusively on Military Sealift Command ships.

The last Navy ship to be homeported at Subic Bay, the cruiser U.S.S. Sterett, received its final long-term planned maintenance at the facility in May 1990. While long-term planned maintenance was phased out over the 5-year period, the amount spent on corrective maintenance increased from $32 million in fiscal year 1987 to $45 million in fiscal year 1990 before declining to $33 million in fiscal year 1991.

Over 70 percent of the maintenance was on Navy ships and the balance was on Military Sealift Command ships. Seven Military Sealift Command ships

were assigned to Subic Bay during the period. As a result of the impending closure, three of these ships have been reassigned to Guam, two to Japan, and two to Singapore.[1]

Guam Ship Repair Facility

Guam performed approximately $189 million in ship maintenance from fiscal years 1987 through 1991. Labor costs were $136 million and material costs were $53 million. Over 80 percent of the costs ($158 million) were for long-term planned maintenance for the five ships homeported at Guam. Corrective maintenance totaled $31 million. While less than one percent of the repairs were performed on Military Sealift Command ships, this figure will increase with the reassignment of three ships from Subic Bay to Guam.

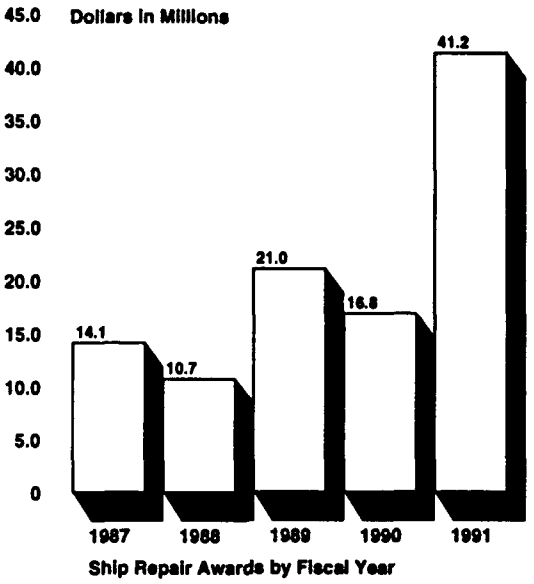
Ship Repairs at Commercial Shipyards

In addition to the $97 million spent at commercial shipyards in Japan, about $104 million in repair work was performed by other foreign commercial shipyards in 14 countries from fiscal year 1987 through fiscal year 1991. About 23 percent of the costs were for repairs to Pacific Fleet ships and 77 percent were for Atlantic Fleet ships. According to Navy officials, all of the costs were for corrective maintenance.

Figure 3.3 shows that the costs ranged from $11 million in 1988 to $41 million in 1991.

[1]The Navy has a regional contracting center at Singapore, but no repair facility. Maintenance for the ships homeported at Singapore will be contracted to private contractors.

Figure 3.3: Ship Repairs at Foreign Commercial Shipyards

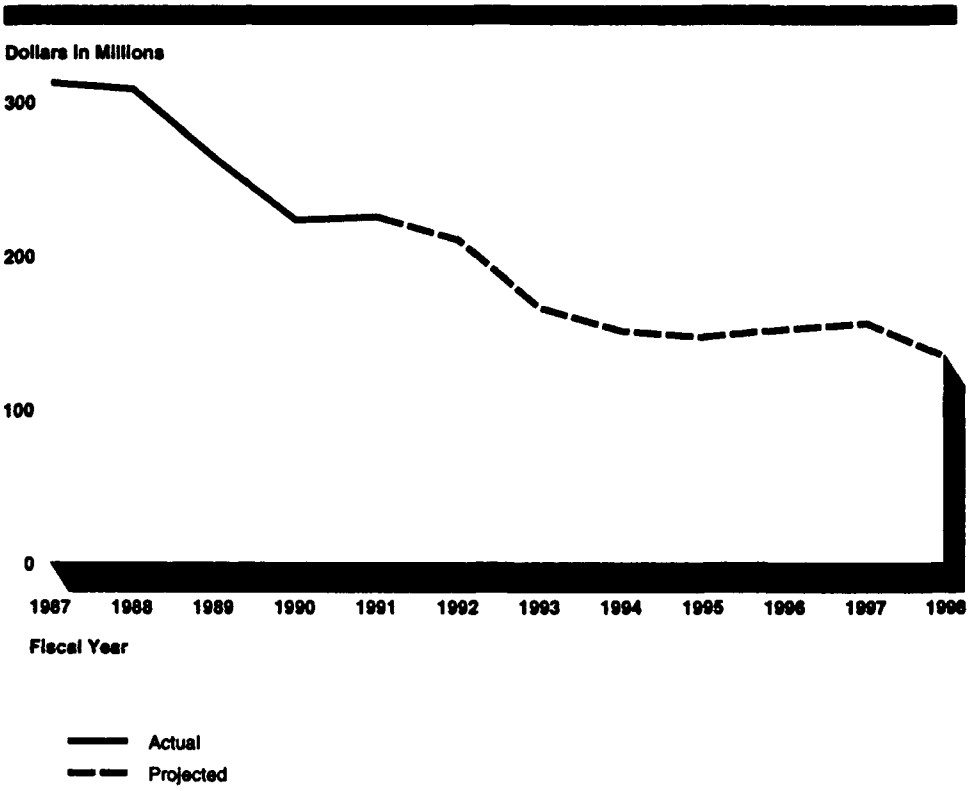


According to Navy officials, the increase in fiscal year 1991 was due to the effects of Desert Shield/Desert Storm. For example, during fiscal year 1991, foreign contractors in Bahrain received 85 contracts totaling $10.4 million, a 140-percent increase over the 55 contracts totaling $4.3 million received in 1990. Similarly, foreign contractors in Dubai were awarded 60 contracts totaling $15.4 million in fiscal year 1991. In contrast, two contracts totaling $400,000 were awarded to foreign contractors in Dubai in fiscal year 1990.

Projections for Future Years

The Navy projects that expenditures for overseas ship repairs during fiscal years 1992 to 1998 will total $1.1 billion. Navy officials stated that the overseas maintenance budget will decline through fiscal year 1995 due to the decreasing size of the fleet, the reductions in defense spending, and the Japanese government's payment of labor costs at the Yokosuka facility. In comparison to fiscal year 1991, overseas ship repair costs for fiscal years 1992 and 1993 will decrease 23 percent and 26 percent, respectively. The closure of Subic Bay and cuts in planned maintenance will account for most of this decline. Spending for overseas ship repairs is expected to level off beginning with fiscal year 1995 to about $150 million a year, as indicated in figure 3.4.

Figure 3.4: Decline in Overseas Ship Repairs From FY 1987 to FY 1998



Navy data projects that overseas ship maintenance will constitute a smaller portion of the overall ship maintenance budget in the future. Overseas maintenance is projected to fall from 8.8 percent of the overall ship maintenance budget in fiscal year 1991 to 3.8 percent of the budget in fiscal year 1998.

Costs Are Higher at U.S. Shipyards

For fiscal years 1992 through 1998, the costs to perform long-term planned maintenance on Yokosuka-based ships at U.S. shipyards could be from 131 percent to 460 percent higher than the cost at the Navy-operated Yokosuka facility. Depending upon the private or public U.S. shipyard performing the maintenance, the labor costs could range from $211.7 million to $741.6 million more than the Yokosuka facility. In addition, the Navy would incur nonmaintenance costs of $51.2 million to return the Yokosuka-based ships to the United States for long-term planned maintenance. These costs would be for fuel to transit the ships to and from the United States and for family separation allowances.

A major factor contributing to the lower cost at Yokosuka is the government of Japan's labor cost-sharing agreement with the United States. By 1996, Japan will fund 100 percent of the labor cost at this Navy-operated facility.

Labor Costs Are Significantly Different

We compared the projected labor costs of performing long-term maintenance, which is regularly scheduled, at the Yokosuka ship repair facility with the projected labor costs at five public shipyards in the United States. We also compared Yokosuka's ship repair costs with those of U.S. private contractors, since it is the Navy's policy to have a portion of its ship repairs conducted at private shipyards. We used composite rates for the Norfolk and San Diego areas to develop private contractors' projected labor costs.

We developed these projected labor costs for the 10 ships based at Yokosuka during fiscal year 1992. These ships consist of one carrier, two destroyers, two cruisers, four frigates, and one amphibious command ship. Table 4.1 shows the results of our comparison for fiscal years 1992 through 1998.

Table 4.1: Projected Labor Costs at Yokosuka and U.S. Shipyards

Dollars in millions

Shipyard	Total labor cost FY 1992-98	Cost difference from Yokosuka
Yokosuka	$161.3	0
Private:[a]		
East Coast	$373.0	$211.7
West Coast	$456.0	$294.7
Public:		
Charleston[b]	$347.0	$256.1
Norfolk	$625.8	$464.5
Puget Sound	$663.2	$501.9
Long Beach	$670.0	$508.7
Pearl Harbor	$902.9	$741.6

[a]The rates used to develop the private shipyards' costs are based on bids that are traditionally low because private contractors tend to submit low-price proposals to obtain Navy ship repair work in an intense competitive market.

[b]The labor costs for the Charleston public shipyard and the cost difference from Yokosuka do not include the projected labor cost for the carrier. According to Navy officials, a carrier would not be assigned to this shipyard because a highway bridge in the area prevents transit of carriers to the shipyard.

Carrier maintenance accounts for about 44 percent of the projected labor costs for the 10 Yokosuka-based ships. For example, the cost to maintain the carrier at the East Coast private shipyard area would be $165 million, while the cost at the Pearl Harbor public shipyard would be $400 million. The cost incurred at Yokosuka for planned maintenance of the carrier would be $70.4 million.

Navy officials informed us that because the carrier requires a unique maintenance schedule to meet continuous deployment requirements in the Pacific region, they believed that returning the carrier to a U.S. shipyard for planned maintenance would require the Navy to either operate more carriers to maintain the same level of presence in the Pacific region or allow that level to drop significantly. Also, the officials stated that the amphibious command ship should be excluded from our cost analysis for private shipyards because it contains complex electronic equipment and for security reasons would only be assigned to a public shipyard for maintenance. However, we included these two ships in our analysis to present consistent cost comparisons among the shipyards.

Nonmaintenance Costs to Return Ships

Returning the Yokosuka-based ships to the United States would result in nonmaintenance costs of $51.2 million for fiscal years 1992 through 1998. Costs of $45.5 million would be incurred for fuel to transit the ships to and from the United States and $5.7 million would be incurred for family separation allowances. The Navy would not incur costs for permanent change of station moves because the transit to and from the United States and the maintenance period would be less than 9 months. Per diem costs of $100 a day could be incurred if government quarters are not available at the U.S. shipyards.

Effect of Labor Cost-Sharing Agreement

The government of Japan's labor cost-sharing agreement with the United States, signed in January 1991, is a major factor for the lower labor costs at the Yokosuka facility. The falling value of the dollar versus the yen and Japanese union concerns regarding work force stability led to this agreement. The United States has encouraged Japan to undertake financial responsibility for stationing Navy forces in Japan in return for a U.S. commitment to defend Japan.

Beginning in fiscal year 1992, the government of Japan began funding a percentage of labor costs at the Yokosuka facility. This percentage will increase until 1996, when the Japanese government will fund 100 percent of the labor costs, as shown in table 4.2.

Table 4.2: Government of Japan's Labor Cost Sharing

Fiscal year	Cost-sharing percentage
1992	25.0
1993	37.5
1994	62.5
1995	87.5
1996	100.0

The Navy will incur some labor costs at Yokosuka after 1996 because about 30 percent of the work will be contracted to private contractors. The Japanese government does not fund the contracted work because there is no cost-sharing agreement between the United States and Japan on this work.

The Navy's Compliance With the Law Cannot Be Determined

Since fiscal year 1987, the Congress has restricted the type of overseas maintenance performed on U.S. homeported ships. The Navy has not incorporated these legislative restrictions into its policies, regulations, or procedures. Although planning documents indicate that the Navy's intent is to comply with the law, the Navy lacks sufficient internal controls to determine whether it actually is in compliance with these legislative restrictions.

Mandated Limitations on Overseas Repairs

Congressional concern arose over the volume of Navy ship repair work being performed overseas during fiscal year 1987 budget hearings before the Defense Subcommittee of the House Committee on Appropriations. In the House report on the Defense appropriation bill for fiscal year 1987, the Appropriations Committee noted the need to contract emergent work overseas and the need to minimize family separations. However, the Committee objected to U.S. homeported ships receiving planned maintenance overseas, and specifically cited Military Sealift Command ships that had received such maintenance. The Committee believed the need to maintain the U.S. industrial base outweighed any other reason for contracting ship repair work overseas.

Restrictions on overseas ship repairs were included as general provisions in section 9101 of the Fiscal Year 1987 DOD Appropriations Act (Public Law 99-500, Oct. 18, 1986, 100 Stat. 1783-18) and the following year's appropriations act (section 8141, Public Law 100-202, Dec. 22, 1987, 101 Stat. 1329-88). Both acts stated

"No naval vessel or any vessel owned and operated by the Department of Defense homeported in the United States may be overhauled, repaired, or maintained in a foreign owned and operated shipyard located outside of the United States, except for voyage repairs."

Section 1224 of the National Defense Authorization Act, Fiscal Year 1989 (Public Law 100-456, September 29, 1988) amended 10 U.S.C. 7309 by including a similar provision as subsection (c). Neither law defines "voyage repair."

"A naval vessel (or any other vessel under the jurisdiction of the Secretary of the Navy) the homeport of which is in the United States may not be overhauled, repaired, or maintained in a shipyard outside the United States. • • • Subsection c does not apply in the case of voyage repairs."

Navy Instructions Do Not Incorporate Legislative Restrictions

Although laws restricting overseas repairs have been in effect since fiscal year 1987, the Navy has not incorporated legislative restrictions into its policies, regulations, or procedures. However, during our review, Navy officials began revising the Navy instruction that would incorporate legislative restrictions. At the time this report was issued, the instruction had not been approved.

Navy planning documents indicate its intent to comply with these legislative restrictions. Our review of approved Chief of Naval Operations long-term planned maintenance for Navy ships showed that all U.S. homeported ships are scheduled to receive long-term planned maintenance only at U.S. shipyards. In addition, Navy officials have stated before the Congress (most recently on April 2, 1992, in testimony before the House Armed Services Committee, Subcommittee on Seapower and Strategic and Critical Materials) that the Navy is in compliance with 10 U.S.C. 7309(c).

Data Are Inconclusive in Determining Compliance

The Navy instruction on ship maintenance defines voyage repairs as emergency work necessary to enable a ship to continue on its mission and which can be accomplished without requiring a change in the ship's operating schedule. However, fleet officials told us that they consider emergent repairs as consistent with the definition of voyage repair and, therefore, allowed by 10 U.S.C. 7309 to be performed at overseas facilities. The Pacific Fleet distinguishes between emergent and voyage repairs, while the Atlantic Fleet uses the terms interchangeably. As part of a ship's deployment, the Pacific Fleet schedules periods of maintenance to repair any problems that may have emerged or to prevent any problems from occurring during deployment. Pacific fleet officials call these repairs emergent. The Pacific Fleet defines voyage repairs as emergency work on a deployed ship that, by nature, cannot be scheduled. The Military Sealift Command also accomplishes similar scheduled repairs to its ships, but the Military Sealift Command categorizes all overseas repairs other than long-term planned maintenance as voyage repairs.

The Navy can identify the funds made available to accomplish long-term planned or corrective maintenance at overseas ship repair facilities and foreign commercial shipyards, but cannot accurately identify how the funds were actually spent. We worked with Navy officials over a 6-month period to satisfy ourselves that the historical data the Navy provided us was reliable and accurately reported the costs of ship repairs. However, questions remain regarding the nature of corrective maintenance performed overseas and how those repairs are reported.

From fiscal years 1987 to 1991, the Navy spent about $544 million on corrective maintenance performed overseas. At the Navy-operated facilities, corrective maintenance totaled $440 million, while at foreign commercial shipyards repairs to Navy ships totaled $104 million.

Emergent Repairs Performed on U.S. Homeported Ships

Of the $440 million spent on corrective maintenance at the Navy-operated ship repair facilities, we identified $116 million that was spent for emergent repairs on ships homeported in the United States. Seventy-seven percent of these repairs were accomplished at Subic Bay. The Pacific Fleet scheduled these emergent repairs for ships that were primarily homeported at Pearl Harbor or the West Coast. Pacific Fleet officials described the repairs as necessary to prevent problems from occurring during the remainder of the ship's deployment. However, data was not available to determine why these repairs were made during deployment, or if these repairs could have been delayed until the ship returned to its U.S. homeport.

Further, Pacific Fleet officials stated that some of these emergent repairs probably should have been classified as voyage repairs. They stated that the cost for voyage repairs to Pacific Fleet ships was probably low, considering that there were hundreds of deployments in the Pacific region. We identified $662,500 spent on voyage repairs to Navy ships for fiscal years 1987 to 1991.

Data at Foreign Commercial Shipyards Incomplete

The Navy awarded $104 million in contracts for ship repairs at foreign commercial shipyards during fiscal years 1987 to 1991. Navy officials stated that most of these awards were for emergent repairs. However, although the Navy could provide the value and number of contract awards to foreign commercial shipyards, Navy officials could not provide actual costs for these repairs or the support for identifying the nature of the repairs.

No Oversight for Overseas Maintenance

Internal controls are essential elements of effective management. When properly implemented they provide reasonable assurances that resources are used in accordance with laws, policies, regulations, and management's intent. Navy planning documents show that the Navy's intention is to comply with the law. However, we identified data problems during this review that demonstrate the Navy does not have adequate internal controls over important overseas ship maintenance data.

The Navy does not have central oversight or a centralized data base for overseas ship maintenance data. Oversight is fragmented among the ship repair facilities and contracting offices. These overseas facilities do not routinely report data that can be used to determine the Navy's compliance with the law. The current process for obtaining data on overseas repairs is time consuming; a manually intensive review of contract documents is done to identify and classify ship repair activities. In December 1991, we requested the costs of overseas ship repairs for fiscal years 1987 to 1991. After numerous clarifications and discussions, we received available data on June 8, 1992. Navy officials said that most of the data was extracted from various documents located in warehouses at the performing repair facilities or contracting offices. This process proved to be not only time consuming but subject to numerous errors, which resulted in inconsistent data between and within the ship repair facilities and contracting offices.

The Federal Managers' Financial Integrity Act of 1982 (31 U.S.C. 3512(d)) requires that agency internal control systems be periodically evaluated and that agency heads provide annual reports to the President and the Congress that state whether these systems comply with the objectives of internal controls set forth in the act and with the standards prescribed by the Comptroller General. When systems do not comply, agency reports must identify the weaknesses involved and describe the plans for corrective action. We reviewed these reports to determine if the Navy had identified significant weaknesses in internal controls over the overseas ship maintenance process and found that there were no indications that the Navy had reviewed this area.

Conclusions and Recommendations

Problems with incomplete data provided by the Navy demonstrate an internal control weakness regarding the overseas ship repair process. Although the Navy has defined "voyage repair," it has not done enough to ensure that all repairs being performed on U.S. homeported ships at overseas locations are necessary for those ships to complete their missions.

Therefore, we recommend that the Secretary of the Navy (1) incorporate section 7309(c) of title 10, U.S. Code, into the Department's policy and guidance; (2) conduct the evaluation necessary to determine if compliance with statutory limitations on overseas ship maintenance activities is an issue needing corrective action in the Federal Managers' Financial Integrity Act assessment process; and (3) if so, develop and implement a corrective action plan.

Agency Comments

DOD agreed with our findings and recommendations and stated that a new Chief of Naval Operations instruction (OPNAVINST 4700.7J, Maintenance Policy for Naval Ships) will incorporate legislative limitations on overseas maintenance and will be released during the first quarter of fiscal year 1993. This guidance will provide that, for ships homeported in the United States, only voyage repairs may be conducted by shipyards or ship repair facilities located outside of the United States or its territories. Maintenance for ships being prepared for homeporting overseas, or returning from overseas, will be scheduled to maximize the use of the industrial capacity of the United States. Also, the instruction will define terms such as voyage repairs and emergent repairs to eliminate individual interpretation or confusion as to which ship repairs may be legally performed overseas. DOD noted that on August 12, 1992, the Chief of Naval Operations sent a message to the fleets regarding the legislative limitations on overseas ship maintenance.

DOD stated that the Navy has included overseas ship maintenance activities as a material weakness needing corrective action in the current Federal Managers' Financial Integrity Act assessment process. The Navy has developed a tentative corrective action plan that will be submitted for approval during the assessment process.

Comments From the Department of Defense

ASSISTANT SECRETARY OF DEFENSE
WASHINGTON, DC 20301-8000

28 OCT 1992

(L/MD)

Assistant Comptroller General
National Security and
International Affairs Division
U.S. General Accounting Office
Washington, DC 20548

Dear Mr. Conahan:

This is the Department of Defense (DoD) response to the General Accounting Office (GAO) draft report, "NAVY MAINTENANCE: Overseas Ship Repairs and Associated Costs," dated September 11, 1992 (GAO Code 394463), OSD Case 9199. The Department agrees with the report findings and recommendations.

The GAO acknowledges that maintenance of ships homeported at overseas shipyards was consistent with the Navy Operational Plans. The GAO also found that the costs to perform planned maintenance on Yokosuka-based ships at U.S. shipyards would not be cost effective. The GAO also proposed incorporation of Section 7309(C) of Title 10, U.S. Code stating that, for ships homeported in the United States, only voyage repairs may be conducted by shipyards or ship repair facilities located outside of the United States. The Navy is currently implementing that recommendation.

The detailed DoD comments on each finding and recommendation are provided in the enclosure. The Department appreciates the opportunity to comment on the draft report.

Sincerely,

Enclosure

**GAO DRAFT REPORT - DATED SEPTEMBER 11, 1992
(GAO CODE 394463) OSD CASE 9199**

"NAVY MAINTENANCE: OVERSEAS SHIP REPAIRS AND ASSOCIATED COSTS"

DEPARTMENT OF DEFENSE COMMENTS

* * * * *

FINDINGS

FINDING A: **Navy Operated Facilities Overseas**. The GAO reported that, between FY 1987 and FY 1991, the Navy spent $21.8 billion on ship maintenance. The GAO noted that, of that amount, $1.3 billion was spent overseas. The GAO observed that, according to Navy officials, maintenance on overseas-based ships must be accomplished in foreign ports to minimize family separations and to maintain the condition of ships homeported outside the United States. The GAO explained that overseas maintenance was accomplished at three Navy-owned and operated facilities located at: (1) Yokosuka, Japan; (2) Subic Bay, The Philippines; and (3) Guam. The GAO learned that, also between FY 1987 and FY 1991, overseas work on Navy ships was contracted to numerous foreign commercial shipyards worldwide, with foreign commercial shipyards in 15 countries performing repairs on U.S. ships during the period.

The GAO further reported that the three Navy-owned overseas ship repair facilities report to the Commander in Chief, U.S. Pacific Fleet, who, in turn, reports to the Chief of Naval Operations. In Report Table 1.1, the GAO identified the staffing for the three ship repair facilities at the end of FY 1991. The GAO also observed that Navy officials manage the Yokosuka ship repair facility, although the repair work is performed by Japanese employees. In addition, the GAO observed that the Navy maintains a detachment at Sasebo, Japan.

The GAO reported that the Navy ship repair facility at Subic Bay, in the Philippines, was the largest of the Navy-owned facilities and is scheduled for closure as of December 31, 1992. The GAO found that the Navy currently is studying the impact of the Subic Bay closure on other ship repair facilities. The GAO noted that the ship repair

ENCLOSURE

facility at Guam is the smallest. The GAO explained that Navy officials manage the Guam ship repair facility and the work is performed by U.S. citizens from Guam. The GAO added that nuclear repairs are performed by the submarine tender USS Proteus, which is homeported in Guam.

The GAO noted that the Navy categorizes major ship repairs on Navy ships overseas into two groups, long-term maintenance and corrective maintenance:

- Long-Term Maintenance: The GAO explained that long-term maintenance is regularly scheduled, as approved by the Chief of Naval Operations, and takes two to three months to complete. The GAO asserted that, by law, long-term maintenance should be performed on only 22 Navy ships homeported in the Pacific (17 in Japan and five in Guam).

- Corrective Maintenance: The GAO explained that corrective maintenance includes emergent repairs, which have emerged during deployment (also referred to as preventive maintenance), and voyage repairs, consisting of emergency work necessary to enable a ship to continue its mission and which can be accomplished without a change to a ship operating schedule.
(pp. 10-12/GAO Draft Report)

Now on pp. 8 to 10.

DOD RESPONSE: Concur. During the discussion of categories of maintenance, GAO asserted that, by law, long-term maintenance should be performed only on the 22 Navy ships homeported in the Pacific (17 in Japan and five in Guam). While the law does apply to the 17 ships homeported in Japan, long-term maintenance is not restricted by law to the five ships homeported in Guam, since Guam is a U.S. territory. However, the Navy considers a variety of factors when assigning long-term ship maintenance, including the desire to keep a ship in its homeport during maintenance availabilities to minimize family separations. Additionally, and in accordance with DoD Directive 4151.18, the Navy makes every effort to preserve the U.S. shipyard industrial base by balancing ship repair workload among public and private shipyards.

FINDING B: **National Military Strategy**. The GAO reported it is the DoD position that a high-level presence should be maintained in the Pacific by keeping ships based in Japan and Guam. The GAO noted that, in January 1992, DoD issued a new National Military Strategy, which shifts military planning away from the threat of a global war and toward a variety of threats in regions vital to U.S. interests.

Now on p. 12.

The GAO explained that, according to the new strategy, U.S. interests in the Pacific, including Southeast Asia and the Indian Ocean, require a continuing commitment. The GAO further reported it is the DoD position that the presence of U.S. forces in the Pacific region serves as a stabilizing influence in what is an economically important region. The GAO learned that, although the size of the Navy fleet is declining, the DoD still plans to keep one aircraft carrier battle group and an amphibious-ready group in Japan. (pp. 16-17/GAO Draft Report)

DOD RESPONSE: Concur. The DoD strategy continues to require Navy forward presence in the Pacific region. Navy Maintenance policies support the Department's national military strategy.

FINDING C: **Operational Commitment Policy**. The GAO reported that returning Japan-based ships to West Coast shipyards for repairs would lessen the amount of time those ships would be available in the Pacific region to meet regional commitments. The GAO asserted that, if maintenance for Japan-based ships were accomplished in the United States, the transit time plus the maintenance time, a total of 126 days, would, in effect, constitute another deployment for each ship. The GAO explained that a ship is considered deployed when it operates away from its homeport continuously for at least 56 days. The GAO noted that, in 1985, the Navy established the Personnel Tempo of Operations Program to ensure that Navy missions are met, while continuing to maintain a reasonable quality of life for Navy personnel. The GAO explained that, under the program: (1) ships will not be deployed in excess of 6 months; (2) over a 5-year period, a ship will not be away from its homeport in excess of 50 percent of the time; and (3) for every deployment of 56 days or more, a ship will be compensated twice that time in homeport before deploying again. The GAO noted the rules apply to all Navy ships. The GAO observed that, according to Navy officials, none of the 17 ships based in Japan would be able to meet their operational commitments (nor comply with deployment and family separation policies) if they were returned to the West Coast for long-term planned maintenance. (pp. 17-19/GAO Draft Report)

Now on pp. 12 to 14.

DOD RESPONSE: Concur. The 1985 Personnel Tempo of Operations Program ensured that quality of life for overseas families would be maintained during depot level repair periods.

FINDING D: **Ship Maintenance is Declining.** The GAO reported that during FY 1987 through FY 1991, the Navy spent $1.3 billion on overseas ship repairs, of which $762 million was for long-term

planned maintenance and $569 million was for corrective maintenance. The GAO noted that almost 85 percent of the repair work was accomplished at the three Navy-operated ship repair facilities and the remaining work was accomplished at foreign commercial shipyards. The GAO found that total expenditures on overseas ship maintenance declined 28 percent from FY 1987 to FY 1991, including a $122 million reduction in spending on long-term planned maintenance at the Navy-operated ship repair facilities. The GAO also found that the work done on U.S. naval ships at foreign commercial shipyards was primarily corrective maintenance.

In Report Table 3.1, the GAO showed that expenditures for overseas ship maintenance declined from a high of $312 million in FY 1987 to $225 million in FY 1991. The GAO reported that labor costs at the Navy-operated ship repair facilities accounted for $612 million (or 46 percent) of the $1.3 billion spent on overseas maintenance over 4 years, with material costs and foreign commercial shipyard costs accounting for the remaining $720 million. The GAO noted that, according to Navy officials, material costs would not vary among the U.S. shipyards or overseas ship repair facilities, as the materials used in either case are of U.S. origin and are obtained through the DoD supply system. (pp. 20-22/ GAO Draft Report)

Now on pp. 15 to 17.

DOD RESPONSE: Concur. Overseas ship repair costs will continue to decrease due to declining fleet size, reductions in spending and Japanese Government subsidy of labor costs at Yokosuka. In addition, the Navy policy of performing depot-level ship maintenance at U.S. shipyards either prior to departure for, or upon return from, overseas homeports also contributes to the decline in overseas repairs.

FINDING E: Most Repair Work Performed at Ship Repair Facilities. The GAO reported that, of the $1.3 billion spent from FY 1987 to FY 1991, $1.2 billion was expended at the Navy-operated ship repair facilities or their contractors. The GAO also reported that, in terms of the work performed at the ship repair facilities, 64 percent was for long-term planned maintenance and 36 percent was for corrective maintenance.

- Yokosuka Ship Repair Facility: The GAO reported that the total cost of repairs to Navy and Military Sealift Command ships at Yokosuka and its Sasebo detachment was $775 million over the 5-year period. The GAO noted that labor costs were $299 million and material and contract costs were $476 million. The GAO added that Yokosuka and Sasebo, homeports for 17 ships, conducted

73 percent, or $557 million, of all overseas planned maintenance.

- Subic Bay Ship Repair Facility: The GAO reported that the total cost of repairs at Subic Bay was $264 million over the 5-year period, with labor costs of $177 million and material costs of $87 million. The GAO noted that, of the total costs, $48 million was spent on long-term planned maintenance and $216 million was spent on corrective maintenance. The GAO observed that planned maintenance declined from $12 million in FY 1987 to $6 million in FY 1991. The GAO further noted, that, on the other hand, the amount spent on corrective maintenance increased from $32 million in FY 1987 to $45 million in FY 1990, before declining back down to $33 million in FY 1991.

- Guam Ship Repair Facility: The GAO reported that Guam performed approximately $189 million in ship maintenance from FY 1987 through FY 1991, with labor costs of $136 million and material costs of $53 million. The GAO noted that over 80 percent of the costs, or $158 million, was for long-term planned maintenance for the five ships homeported at Guam, and $31 million for corrective maintenance. (pp. 22-24/GAO Draft Report)

Now on pp. 17 and 18.

DOD RESPONSE: Concur.

FINDING F: **Ship Repairs at Commercial Shipyards**. The GAO reported that, in addition to the $97 million spent at commercial shipyards in Japan, about $104 million in repair work was performed by other foreign commercial shipyards in 14 countries from FY 1987 to FY 1991, all for corrective maintenance. The GAO noted that about 23 percent of the costs were for repairs to Pacific ships and 77 percent were for repairs to Atlantic Fleet ships. Report Figure 3.3 showed that costs ranged from $11 million in 1988 to $41 million in 1991. The GAO observed that, according to Navy officials, the increase in FY 1991 was due to the effects of OPERATION DESERT SHIELD/DESERT STORM. (pp. 24-25/GAO Draft Report)

Now on pp. 18 and 19.

DOD RESPONSE: Concur. The percentage of ships repaired at commercial shipyards was higher for the Atlantic Fleet because there are no Navy-owned ship repair facilities in the Atlantic region.

FINDING G: **Projections for Future Years.** The GAO found that Navy projections of expenditures for overseas ship repairs for the period from FY 1992 to FY 1988 will total $1.1 billion. The GAO observed

that, according to Navy officials, the overseas maintenance budget will decline through FY 1995 due to: (1) the decreasing size of the fleet; (2) the reductions in defense spending; and (3) the Japanese government payment of labor costs at the Yokosuka facility. The GAO estimated that, compared to FY 1991, overseas ship repair costs for FY 1992 and FY 1993 will decrease by 23 percent and 36 percent, respectively. The GAO noted the closure of Subic Bay and cuts in planned maintenance will account for most of the decline. The GAO concluded that overseas maintenance will decline from 8.8 percent of the overall ship maintenance budget in FY 1991, to 3.9 percent of the budget in FY 1998. (pp. 25-26/GAO Draft Report)

Now on pp. 19 and 20.

DOD RESPONSE: Concur.

FINDING H: **Costs Are Higher At U.S. Shipyards**. The GAO compared the projected labor costs of performing long-term maintenance at the Yokosuka ship repair facility with the projected labor costs at five public and two private shipyards in the United States (as illustrated in Report Table 4.2). The GAO developed the projected labor costs for the ten ships based at Yokosuka during FY 1992: one carrier, two destroyers, three cruisers, four frigates, and one amphibious command ship. The GAO found that, for FY 1992 through FY 1998, the costs to perform planned maintenance on Yokosuka-based ships at U.S. shipyards could be from 131 percent to 460 percent higher than the cost at the Navy-operated Yokosuka facility. The GAO estimated that, depending upon the private or public U.S. shipyard performing the maintenance, the labor costs could range from $211.7 million to $741.6 million more than the Yokosuka facility.

In addition, the GAO noted the Navy would incur non-maintenance costs of $50.7 million to return the Yokosuka-based ships to the United States for long-term maintenance, i.e., $45 million for fuel to transit the ships to and from the United States and $5.7 million for family separation allowances. The GAO determined that a major factor contributing to the lower cost at Yokosuka is the Government of Japan labor cost-sharing agreement with the United States. The GAO noted that, by FY 1996, Japan will fund 100 percent of the labor cost at the Yokosuka Navy-operated facility. The GAO reported that, according to Navy officials, returning a carrier to a U.S. shipyard for planned maintenance would require the Navy to either operate more carriers to maintain the same level of presence in the Pacific region or allow that level to drop significantly. (pp. 27-30/GAO Draft Report)

Now on pp. 21 to 23.

DOD RESPONSE: Concur.

Now on p. 24.

FINDING I: Mandated Limitations On Overseas Repairs Not Incorporated in Navy Instructions. The GAO reported that, during the 1987 budget hearing before the Defense Subcommittee of the House Appropriations Committee, congressional concern arose over the volume of Navy ship repair work being performed overseas. The GAO noted that the Appropriations Committee recognized: (1) the need to contract emergent work overseas; and (2) the need to minimize family separations. The GAO pointed out, however, that the Committee objected to U.S. homeported ships receiving planned maintenance overseas, because the need to maintain the U.S. industrial base outweighed any other reason for contracting ship repair work overseas. The GAO observed that, as a result, restrictions on overseas ship repairs were included as general provisions in FY 1987 and FY 1988 DoD Appropriations Acts and in the FY 1989 National Defense Authorization Act.

Although laws restricting overseas repairs have been in effect since FY 1987, the GAO found that the Navy still has not incorporated legislative restrictions into its policies, regulations, or procedures. The GAO did note, however, that Navy officials had begun revising the Navy instruction that would incorporate legislative restrictions. The GAO observed that its review of approved Chief of Naval Operations long-term planned maintenance for Navy ships showed all U.S. homeported ships are scheduled to receive long-term planned maintenance only at U.S. shipyards. (pp. 31-32/GAO Draft Report)

DOD RESPONSE: Concur. The GAO correctly noted that the Navy had begun incorporating legislative restrictions into policy documents. Guidance has been incorporated into Draft Chief of Naval Operations Instruction 4700.7J, "Maintenance Policy for Naval Ships," which will be promulgated in the near future. (Additional comments are contained in the response to Recommendation 1 below.)

FINDING J: Data Are Inconclusive In Determining Compliance. The GAO reported that the Navy instruction on ship maintenance defines "voyage repairs" as emergency work necessary to enable a ship to continue on its mission and which can be accomplished without requiring a change in the ship operating schedule. The GAO noted the Pacific Fleet calls "emergent" the repair of any problems that may have emerged (or to prevent any problems from occurring) during deployment. The GAO noted that fleet officials consider emergent repairs as consistent with the definition of voyage repair and, therefore, consistent with Statute 10 USC 7309, which allows overseas repair. The GAO also noted that, while the Pacific Fleet distinguishes between emergent and voyage repairs, the Atlantic Fleet uses

the terms interchangeably. In addition, the GAO noted that the Military Sealift Command categorizes all overseas repairs other than long-term planned maintenance as voyage repairs.

The GAO found that, while the Navy can identify funds made available to accomplish long-term planned or corrective maintenance at overseas ship repair facilities and foreign commercial shipyards, the Navy cannot accurately identify how the funds were actually spent. The GAO reported that, during the period from FY 1987 to FY 1991, the Navy spent $569 million on corrective maintenance performed overseas. The GAO noted that, at Navy-operated facilities, corrective maintenance overseas totaled $465 million and at foreign commercial shipyards, repairs to Navy ships totaled $104 million. Of the $465 million spent on corrective maintenance at the Navy-operated ship repair facilities, the GAO identified $110 million that was spent for emergent repairs on ships homeported in the United States.

The GAO noted that the Pacific Fleet officials described the emergent repairs as necessary to prevent problems from occurring during the remainder of the ship deployment. The GAO concluded, however, that questions remain regarding the nature of corrective maintenance performed overseas and how those repairs are reported. The GAO found that data was not available to determine why the repairs were made during deployment, or if the repairs could have been delayed until the ship returned to its U.S. homeport. The GAO also found that, although the Navy could provide the value ($104 million) and the number of contract awards to foreign commercial shipyards, it could not provide actual costs for the repairs or the support for identifying the nature of the repairs. (pp. 33-35/GAO Draft Report)

Now on pp. 25 and 26.

DOD RESPONSE: Concur.

FINDING K: No Oversight For Overseas Maintenance. The GAO concluded that, although Navy planning documents show the Navy intention is to comply with the law, the Navy does not have adequate internal controls over important overseas ship maintenance data. The GAO found that the Navy does not have central oversight or a centralized data base for overseas ship maintenance data. The GAO further found that oversight is fragmented among the ship repair facilities and contracting offices and that the overseas facilities do not routinely report data that can be used to determine compliance with the law. The GAO noted that the current process for obtaining data on overseas repairs is time consuming, requiring a manually intensive review of contract documents. The GAO also concluded that the current process is subject to numerous errors.

The GAO also found that the Navy had not identified significant weaknesses in internal controls over the overseas ship maintenance process, in compliance with the Federal Manager's Financial Integrity Act of 1982. The GAO concluded that, in fact, there were no indications that the Navy had ever reviewed the area. (pp. 35/36 GAO Draft Report)

Now on pp. 26 and 27.

DOD RESPONSE: Concur.

* * * * *

RECOMMENDATIONS

Now on pp. 27.

RECOMMENDATION 1: The GAO recommended that the Secretary of the Navy incorporate Section 7309(c) of Title 10, U.S. Code, into Department policy and guidance. (p. 36/GAO Draft Report)

DOD RESPONSE: Concur. The following guidance has been incorporated into a new Chief of Naval Operations Instruction 4700.7J, "Maintenance Policy for Naval Ships," which is scheduled for release in the first quarter of FY-1993: "In accordance with Title 10, U.S. Code, for ships homeported in the United States, only voyage repairs may be conducted by shipyards or ship repair facilities located outside of the United States or its territories. In addition, maintenance for ships being prepared for, or returning from, homeporting overseas will be scheduled to maximize the use of the industrial capacity of the United States."

On August 12, 1992, the Chief of Naval Operations sent a message to the Fleets that reiterated overseas ship maintenance policies and the provisions of Section 7309(c), Title 10, U.S. Code.

Chief of Naval Operations Instruction 4700.7J will include clarifying guidance and/or revised definitions of terms such as "voyage repairs" and "emergent repairs" to eliminate individual interpretation or confusion as to which ship repairs may legally be done overseas.

Now on p. 27.

RECOMMENDATION 2: The GAO recommended that the Secretary of the Navy conduct the evaluation necessary to determine if compliance with statutory limitations on overseas ship maintenance activities is an issue needing corrective action in the Federal Manager's Financial Integrity Act assessment process. (p. 36/GAO Draft Report)

DOD RESPONSE: Concur. This material weakness will be included in the FY 1992 Federal Manager's Financial Integrity Act Assessment process.

Now on p. 27.

RECOMMENDATION 3: The GAO recommended that, if compliance with statutory limitations on overseas ship maintenance activities is an issue needing corrective action in keeping with the Federal Manager's Financial Integrity Act assessment process, the Secretary of the Navy develop and implement a corrective action plan. (p. 36/GAO Draft Report)

DOD RESPONSE: Concur. A tentative corrective action plan has been developed and will be submitted to senior Navy leadership for approval during the FY 1992 annual submission for the Federal Manager's Financial Integrity Act Assessment process.

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